April 3, 1973
Preliminary Copy
University of Idaho
Soil Conservation Service

Taney Silt Loam
65 Ida 0507

General Site Characteristics

Location -- Benewah County, Idaho, McClellan Watershed, 700 feet south and 150 feet west of the northeast corner of the SE¼ in the NE¼, NE¼, section 18, T. 46 N., R. 5 W.; described -- August 13, 1965 by

; topography -- rolling loess plain, smooth side slope, 3-7 percent slope; elevation -- 2720 feet; aspect -- north - northwest; parent material -- loess with some slope wash influence; drainage -- moderately well; erosion -- nil; permeability -- slow to very slow; vegetation or use -- Douglas fir, Ponderosa pine, ocean spray, tall shrub; classification -- Typic Fragiumbrepts, coarse-silty, mixed, frigid.

Pedon Description

A11 0-2 inches. Dark grayish brown (10YR 4.2/1.8) broken, dark grayish brown (10YR 4/1.8) crushed, silt loam, very dark brown (10YR 2/2) crushed, moist; weak fine platy to weak fine granular structure; friable, slightly sticky and slightly plastic; noncalcareous; abundant micro, very fine, and fine roots; many micro and very fine interstitial pores; abrupt smooth boundary.

A12 2-8.5 inches. Grayish brown (10YR 5/2.4) broken, brown (10YR 4.8/2.8) crushed, silt loam, dark brown (10YR 2.6/3) crushed, moist; weak medium subangular blocky structure; friable, slightly sticky and slightly plastic; noncalcareous; abundant micro and very fine and few fine roots; many very fine tubular and interstitial pores; common hard black MnO_2 concretions and charcoal; many bleached silt grains; clear smooth boundary.

AB 8.5-13 inches. Grayish brown (10YR 5.4/2.4) broken, brown (10YR 5/3) crushed, silt loam, dark brown (10YR 3/3.4) broken, moist, dark brown (10YR 3/3) crushed, moist; weak medium subangular blocky structure; firm, slightly sticky and slightly plaatic; noncalcareous; abundant micro and

very fine and common fine roots; many very fine and fine tubular and interstitial pores; many 1-3 mm hard black MnO_2 concretions; many silt grains around and within peds; clear smooth boundary.

B2 13-18 inches. Brown (10YR 5.4/2.6) broken, brown (10YR 4.8/2.8) crushed, silt loam, dark brown (10YR 3/3.4) broken, moist, dark brown (10YR 3/3) crushed, moist; weak to moderate medium subangular blocky structure; firm, slightly sticky and slightly plastic; noncalcareous; plentiful micro and very fine and few fine roots; many very fine and fine tubular and interstitial pores; many 1-3 mm hard black MnO_2 concretions; extensive bleached silt grains around and in peds; clear smooth boundary.

B3 18-25 inches. Pale brown (10YR 5.6/2.6) broken, pale brown (10YR 5.6/3) crushed, silt loam, dark brown (9YR 3/3.4) broken, moist, dark brown (10YR 3.6/3) crushed, moist; weak medium subangular blocky structure; hard, firm, slightly sticky and slightly plastic; noncalcareous; plentiful micro and very fine and common fine roots; many very fine and fine tubular and interstitial pores; many 1-3 mm hard black MnO_2 concretions; abrupt wavy boundary.

A'2 25-28 inches. Light gray (10YR 7/2) broken and crushed, silt, grayish brown (10YR 5/2.4) broken, moist, brown (10YR 4.6/2.8) crushed, moist, brown (10YR 5/3) remnants of B material; massive, tend to prismatic in lower part; hard, friable, slightly sticky and slightly plastic; noncalcareous; few very fine roots; few micro and very fine tubular pores; many concretions; abrupt wavy boundary.

B'21tx 28-36 inches. Yellowish brown (9YR 5/4) crushed, light gray (10YR 7/1.6) coats, silty clay loam, yellowish brown (10YR 5/4) crushed, moist; moderate to strong medium prismatic structure; extremely hard, very firm, very sticky and plastic; noncalcareous; flattened roots matted on ped surfaces; many very fine and fine tubular and many very fine interstitial pores; medium continuous clay films on vertical and horizontal pore surfaces; many 1 mm hard

black concretions; many frosted surfaces around and within pores are distinct; clear smooth boundary.

B'22tx 36-45 inches. Light yellowish brown (10YR 6/4) broken, silt loam, yellowish brown (10YR 5/4) crushed, moist; moderate medium prismatic structure; extremely hard, very firm, very sticky and plastic; noncalcareous; flattened roots matted on ped surfaces; many very fine and fine tubular and many very fine interstitial pores; thin and medium continuous clay films on vertical and horizontal pore surfaces; many 1 mm hard black concretions; many splotches of MnO_2 stains; many bleached areas around peds; clear smooth boundary.

B'23tx 45-53 inches. Pale brown (10YR 6/3) broken, silt loam, yellowish brown (10YR 5/4) crushed, moist; weak medium and coarse prismatic to moderate medium and coarse subangular blocky structure; very hard, very firm, very sticky and plastic; noncalcareous; flattened roots matted on ped surfaces; many very fine and fine tubular and very fine interstitial pores; thick continuous clay films on vertical and horizontal pore surfaces; many 1 mm hard black concretions; some MnO_2 splotches and A2 splotches; clear smooth boundary.

B'3t 53-62+ inches. Pale brown (10YR 6/3) broken, silt loam, yellowish brown (10YR 5/4) crushed, moist; weak medium prismatic structure; hard, firm, sticky and plastic; noncalcareous; flattened roots matted on ped surfaces; many very fine and fine tubular and very fine interstitial pores; thin continuous clay films on vertical and horizontal pore surfaces; many 1 mm hard black concretions; silt coats.

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Chemical characterization and physical analysis Taney profile

No.	Horizon	Depth in.	pH Paste	pH 1:5	ECx10^3	Saturation extract me/1000 gms soil Ca	Mg	Na	K	CO_3	HCO_3	Cl	SO_4
1	A11	0-2	6.05		.33								
2	A12	2-8.5	5.60		.28								
3	AB	8.5-13	5.80		.20								
4	B2	13-18	5.80		.15								
5	B3	18-25	5.75		.13								
6	$A_1$2	25-28	5.80		.10								
7	$B_1$21tx	28-36	5.10		.10								
8	$B_1$22tx	36-45	5.40		.10								
9	$B_1$23tx	45-53+	5.70		.10								
10	$B_1$3t	53-62	6.00		.16								

Exchangeable ions me/100 gms Ca	Mg	Na	K	H	C.E.C. meq/100	Base Sat.%	Gyp.	$CaCO_3$	E.S.P.	O.M. %	N %	C:N	Soil:Rx ratio
13.3	2.4	.1	1.1	12.9	25.1	56.8				6.49	.214	17.6	
8.6	1.6	.1	.5	12.9	20.7	45.8				3.73	.145	15.0	
8.8	1.6	.1	.5	8.7	17.0	56.0				1.87	.088	12.4	
8.6	1.7	.1	.5	8.2	16.6	57.2				1.62	.082	11.5	
8.4	2.0	.1	.4	6.8	15.6	61.5				1.35	.075	10.5	
6.6	1.8	.1	.2	3.1	11.1	73.6				.42	.031	8.1	tr
15.0	5.7	.3	.3	8.2	27.0	72.1				.36	,031	7.4	tr
14.4	5.4	.4	.3	6.7	26.0	75.4				.22	.027	4.8	tr
14.4	5.5	.5	.3	5.1	24.1	80.1				.25	.027	5.3	
15.4	5.6	.5	.3	4.5	25.7	82.9				.21	.028	4.4	

$$\%C = \frac{\%\ OM}{1.72}$$

Profile: 65 Ida 0507

Date: September 29, 1969

No.	Particle size distribution (mm) (percent)								Gravel & Stone, etc.	Texture Class
	VCS 2-1.0	CS 1-0.5	MS 0.5-0.25	FS 0.25-0.05	VFS 0.1-0.05	TS	TSi 0.05-0.002	TC < 0.002	> 2mm	
0- 2	-	.16	.32	1.77	.31	2.57	81.26	16.17	none	Silt loam
2- 8.5	-	.05	.20	1.83	4.15	6.24	76.92	16.85	none	Silt loam
8.5-13	-	.01	.15	1.85	5.67	7.68	75.23	17.09	none	Silt loam
13-18	-	.07	.17	1.77	4.02	6.03	75.68	18.29	none	Silt loam
18-25	.09	.20	.27	1.67	4.31	6.54	75.72	17.73	none	Silt loam
25-28	-	.14	.26	1.68	4.36	6.44	84.19	9.37	none	Silt
28-36	.02	.08	.07	.43	2.67	3.26	63.83	32.91	none	Silty clay loam
36-45	-	.02	.06	.33	1.81	2.23	73.52	24.25	none	Silt loam
45-53	.08	-	.14	.54	1.86	2.63	74.04	23.33	none	Silt loam
53-62	.21	.23	.14	.68	3.90	5.17	70.64	24.19	none	Silt loam